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Remarks

Applicant respectfully requests reconsideration. This amendment after final rejection is accompanied by a request for continued prosecution (RCE) under 37 C.F.R. § 1.114 and an accompanying fee.

Applicant and Applicant's attorney wish to extend their thanks to the Examiner for participating in a telephone interview held on June 26, 2006. During the interview, the inventor, Evgeny Polyakov, provided a high level description of the technology disclosed in this application and particularly its uses for testing equipment connected to a bus or other communication medium. Mr. Polyakov described the nature of "communication element types" with reference to the specification. Examples of communication element types, such as message types, word types, and field types, were described. Mr. Polyakov also explained the way in which communication element types can be used in a software program.

As he explained, communication element types are similar in concept to user-definable data types supported by many computer languages, such as C. In a software program, such as a test program, different communication element types can be "instantiated," e.g., different instances of any "type" can be created. The instances can then be assigned values, or otherwise manipulated, by the software program. When the software program is run, the value-assigned instances are executed for communicating over a target medium.

Mr. Polyakov also explained that the software is typically used in conjunction with a test instrument (e.g., the Bus Test Instrument, or "BTI"), which can be connected to a bus or other communication medium. A test program can be written for exercising a particular bus using the communication element types.

During the interview, the Examiner expressed his view that the claims lacked sufficient detail and context to clearly distinguish over the prior art. Applicant has submitted amendments herewith, and has added new claims, which are believed clearly to distinguish over the prior art.

Turning now the rejections of the Final Office Action, the Examiner has rejected claim 1 under 35 U.S.C. § 102(b) as being anticipated by Baker et al. (US Patent No. 6,266,700, hereinafter, "Baker"). Baker has already been described in Applicant's previous amendment.

Claim 1 as amended is directed to a method of communicating over a plurality of different target media each having a protocol. Claim 1 as amended recites, *inter alia*, “providing, for each of the plurality of different target media, a plurality of communication element types hierarchically representing different communication elements for the respective protocol [...]”

Claim 1 as amended clearly distinguishes over Baker. For example, claim 1 as amended requires that “the plurality of communication element types [be] accessible to at least one software program for directing communications over the respective target medium.” As an initial matter, Baker does not teach or suggest anything that corresponds to communication element types as recited in claim 1 as amended. Also, Baker does not teach or suggest the use of a “software program” for “directing communications.” As recited in claim 1 as amended, the communication element types are “accessible” to at least one software program. This idea is absent from Baker.

Claim 1 as amended clearly defines the communication element types. For example, they are provided for “hierarchically representing different communication elements for the respective protocol[.]” The representation is hierarchical, rather than flat (as data appears to be organized in Baker). One aspect of this hierarchical representation is that “at least some communication element types relating to higher layers of the protocol include references to one or more communication element types relating to lower layers of the protocol[.]” Examples of this hierarchical representation are disclosed in the figures and specification, wherein message types are shown to include references to word types, and word types are shown to include references to field types. See Fig. 3 and ¶¶ [0031]-[0038].

The term, “communication elements,” as used in claim 1 as amended, and in subsequent claims, refers to aspects of a target protocol that the “communication element types” represent. For example, the “plurality of communication element types” may represent certain messages, words and/or fields supported or defined by a target protocol. The “communication elements” in this case could then refer to those messages, words, and fields of the target protocol, which the communication element types may be defined to represent. The specification provides examples of “communication elements” at ¶ [0011], wherein message types BC-RT, RT-BC, and RT-RT for the MIL-STD-1553 bus are described.

In light of the foregoing, Baker does not anticipate claim 1 as amended. Therefore, the rejection of claim 1 as amended under 35 U.S.C. § 102(b) should be withdrawn. Therefore, claim 1 as amended is allowable.

Claims 2-10, 12-16, and 20 depend from claim 1 as amended and are allowable for the same reasons.

Claims 2-6 and 10 have been amended to be more consistent with the language and content of claim 1 as amended. Claim 13 has been amended to correct a typographical error (a missing comma). Claim 11 has been canceled without prejudice.

The Examiner has rejected claim 17 under 35 U.S.C. § 102(b) based on Baker. Claim 17 as amended is directed to a method of structuring communications over a communication medium having a known protocol. The method recites, *inter alia*, “providing a plurality of communication element types for representing communication elements at different layers of the protocol [...]” In addition, the claim recites, “creating an instance of at least one of the plurality of communication element types” in a software program, “varying at least one characteristic of the instance in the software program[,]” and “operating the software program to direct communications over the communications medium according to the instance with the varied characteristic and to determine a susceptibility of equipment operatively connected to the communication medium to the varied characteristic.”

Claim 17 as amended clearly distinguishes over Baker. For example, Baker does not teach or suggest, “in a software program, creating an instance of at least one of [a] plurality of communication element types[,]” as recited by claim 17 as amended. Nowhere does Baker disclose using a software program to create an instance of a communication element type.

Furthermore, Baker does not teach or suggest “varying at least one characteristic of the instance in the software program[,]” as recited in claim 17 as amended. Just as Baker does not disclose creating an instance in a software program, so also does he not disclose “varying at least one characteristic of the instance in the software program[,]” as recited in claim 17 as amended.

Moreover, Baker does not teach or suggest “operating the software program [...] to determine a susceptibility of equipment operatively connected to the communication medium[,]” as recited in claim 17 as amended. The idea of employing software to test equipment connected to a bus or other medium is absent from Baker.

For at least these reasons, Baker does not anticipate claim 17 as amended, and the rejection of claim 17 as amended under 35 U.S.C. § 102(b) should be withdrawn. Therefore, claim 17 as amended is allowable.

Claim 18 depends from claim 17 as amended and is allowable for the same reasons.

The Examiner has rejected claim 19 under 35 U.S.C. § 102(b) as being anticipated by Baker. Claim 19 as amended clearly distinguishes over Baker.

Claim 19 as amended is directed to a method of creating an interface with a communication medium having a protocol. The method recites, *inter alia*, steps of “creating a plurality of user-definable communication element types” and “saving the plurality of communication element types in a computer readable format[.]” The method further recites, “accessing the saved communication element types by a software program” and “instantiating, via the software program, one or more of the plurality of communication element types to create one or more specific instances [...]”

Baker neither teaches nor suggests the steps of “creating” and “saving” communication element types, and then “accessing” them by a software program to create instances, as recited by claim 19 as amended. Furthermore, Baker neither teaches nor suggests “operating the software program to run the one or more specific instances[.]” as recited by claim 19 as amended.

For at least these reasons, Baker does not anticipate claim 19 as amended, and the rejection of claim 19 as amended under 35 U.S.C. § 102(b) is overcome. Therefore, claim 19 is allowable.

Applicant has added new claims 21-26. Claims 21-22 depend from claim 1 as amended and are allowable for the same reasons. Claims 23-24 depend from claim 17 as amended and are allowable for the same reasons. Claims 25 and 26 are independent.

Claim 25 is directed to a method of communicating over a target medium. Claim 25 recites, *inter alia*, “providing a plurality of communication element types” and “arranging the plurality of communication element types hierarchically [...]” The prior art of record does not teach or suggest a hierarchical arrangement of communication element types. Moreover, claim 25 recites “accessing at least one of the plurality of communication element types by a software program” and “directing communications, responsive to the accessed communication element type(s), over the target medium using the software program.” The prior art of record does not teach or suggest these aspects of

claim 25. Nor does the prior art of record teach or suggest claim 25 as a whole. For at least these reasons, Applicant respectfully submits that claim 25 is allowable.

Claim 26 is directed to a method of communicating over a target medium having a protocol. The claimed method recites, *inter alia*, "providing a plurality of message types and word types for representing communications using the protocol" and "arranging the plurality of message types and word types hierarchically [...]." Claim 26 further recites, "accessing at least one of the plurality of message types and word types by a software program" and "directing communications, responsive to the accessed message type and/or word type over the target medium using the software program." The prior art of record does not teach or suggest these aspects of claim 26. Nor does the prior art of record teach or suggest claim 26 as a whole. Therefore, Applicant respectfully submits that claim 26 is allowable.

Conclusion:

Applicant contends that the application is now in condition for allowance. A notice to that effect is earnestly solicited.

Respectfully Submitted,



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